IN THE CLAIMS:

Amend Claims 1, 4, 6-10 and 12 to read as follows:

1. (Currently amended) A method for the pyrolysis and gasification of organic substances or mixtures of organic substances, wherein

(1.1) the organic substances are introduced into a drying and pyrolysis reactor (1) in which the organic substances are brought into contact with the fluidized ~~fluidised~~-bed material (35) of the combustion fluidized ~~fluidised~~-bed (3) or in which the organic substances are brought into contact with the fluidized ~~fluidised~~-bed material (35) and the reactor wall of the combustion fluidized ~~fluidised~~-bed (3), whereby a drying and pyrolysis take place, in which the organic substances are transformed into steam from the drying and into pyrolysis products (13), where the pyrolysis product consists of gases with condensable substances and solid carbonaceous residue;

(1.2) the solid carbonaceous residue or the solid carbonaceous residue and portions of the steam and of the pyrolysis gases with condensable substances and the fluidized ~~fluidised~~-bed material are guided back into the combustion fluidized ~~fluidised~~ bed (3) in which the carbonaceous residue of the organic substances is incinerated, the fluidized ~~fluidised~~-bed material is heated up and is again guided into the pyrolysis reactor (1);

(1.3) the steam from the drying and the pyrolysis gases (13) are subsequently treated with condensable substance in a further reaction zone (2) such that a product gas (23) with a high calorific value is available;

(1.4) the drying and pyrolysis are carried out in at least one or more pyrolysis reactors (1);

(1.5) the drying and pyrolysis are preferably carried out in two or more pyrolysis reactors (1) which consists of two or more moving bed reactors or of two or more rotary reactors or of rotary reactors and moving bed reactors;

(1.6) the combustion fluidized ~~fluidised~~ bed (3), in which the pyrolysis residues are incinerated, is operated as a stationary fluidized ~~fluidised~~ bed;

(1.7) no ~~solidifying~~ gasification agent or, optionally, a ~~solidifying~~ gasification agent such as steam, oxygen or air or a mixture thereof is supplied to the pyrolysis gases (13);

(1.8) the pyrolysis gases (13) are led into an indirect heat exchanger (2) in which they optionally react with the ~~solidifying~~ gasification agent (21);

(1.9) the firing waste gases (37) or the firing waste gases and the fluidized ~~fluidised~~-bed material of the combustion fluidized ~~fluidised~~ bed (3) are brought into contact with the indirect heat exchanger (2) such that their thermal content is used for the reaction of the pyrolysis gases (13) with the ~~solidifying~~ gasification agent (21);

(1.10) the fluidized ~~fluidised~~-bed material (3) consists only of the ash of the organic substances, or of the ash and unburned carbonaceous residues of the organic substances, or of the ash of the organic substances and of additional fluidized ~~fluidised~~ material, or of the ash and unburned carbonaceous residues of the organic substances and of additional fluidized ~~fluidised~~ material.

2. (Original) A method in accordance with claim 1, wherein the pyrolysis is carried out at a temperature of 450°C to 750°C.

3. (Previously presented) A method in accordance with claim 1, wherein the product gas (23) is guided back in the pyrolysis reactor (1).

4. (Currently amended) A method in accordance with claim 1, wherein ~~solidifying~~ gasification agents (21) such as steam, oxygen or air or a mixture thereof are added into the pyrolysis reactor (1).

5. (Previously presented) A method in accordance with claim 1, wherein the surface of the reactor wall of the combustion fluidized bed (3) has any closed geometrical shape on the side of the pyrolysis reactor (1) and the combustion fluidized bed (3).

6. (Currently amended) A method in accordance with claim 1, wherein the reactions of the pyrolysis gases (13) with the ~~solidifying~~ gasification agent (21) are carried out at temperatures of 800°C to 1,050°C.

7. (Currently amended) A method in accordance with claim 1, wherein the reactions of the pyrolysis gases (13) with the ~~solidifying~~ gasification agent (21) are carried out in the presence of a catalyst.

8. (Currently amended) A method in accordance with claim 1, wherein the reactions (13) with the ~~solidifying~~ gasification agent (21) are carried out in a solid bed of catalyst material.

9. (Currently amended) A method in accordance with claim 1, wherein the reactions of the pyrolysis gases (13) with the ~~solidifying~~ gasification agent (21) are carried out in a fluidized bed of catalyst material.

10. (Currently amended) A method in accordance with claim 1, wherein the reactions of the pyrolysis gases (13) with the ~~solidifying~~ gasification agent (21) are supplied in the presence of a catalyst added to the pyrolysis gas (13) in the entrained flow.

11. (Previously presented) An apparatus for the carrying out of a method for the pyrolysis and gasification of organic substances or mixtures of organic substances, comprising a pyrolysis reactor (1), a fluidized-bed firing (3) for the pyrolysis residue, a reaction zone (2) for the pyrolysis gases (13), and a fluidized-bed material circulation between the combustion fluidized bed (3) and the pyrolysis reactor (1),

characterized in that

a shaft reactor or a rotary reactor having a sluice for the application material and an inlet for the fluidized-bed material from the combustion fluidized bed (3) is disposed next to the combustion fluidized bed;

the shaft reactor (1) has a transport apparatus into the combustion fluidized bed at its lower end;

the combustion fluidized bed (3) has an overflow for transferring the fluidized-bed material into the shaft reactor (1); and

the waste gases (37) of the combustion fluidized bed (3) can be supplied to a heat transfer member (2) which is connected to the shaft reactor (1) for the pyrolysis gases (13).

12. (Currently amended) An apparatus in accordance with claim 11, wherein fluidized ~~fluidised~~-bed material can be removed from the combustion fluidized ~~fluidised~~ bed (3) at least at one point or at a plurality of points and can be guided into the pyrolysis sector.

13. (Previously presented) An apparatus in accordance with claim 11, wherein fluidized-bed material can be removed from the combustion fluidized bed (3) at least at one point or at a plurality of points by means of one or more overflows and can be guided into the pyrolysis reactor.

14. (Previously presented) An apparatus in accordance with claim 10, wherein refractory substances can be added to form a fluidized bed.

15. (Previously presented) An apparatus in accordance with claim 10, wherein the components of the application material which cannot be burned and which cannot be gasified can be used in form of a fluidized bed.

16. (Previously presented) An apparatus in accordance with claim 12, wherein fluidized-bed material can be removed from the combustion fluidized bed (3) at least at one point or at a plurality of points by means of one or more overflows and can be guided into the pyrolysis reactor.

17. (Previously presented) An apparatus in accordance with claim 12, wherein refractory substances can be added to form a fluidized bed.

18. (Previously presented) An apparatus in accordance with claim 13, wherein refractory substances can be added to form a fluidized bed.

19. (Previously presented) An apparatus in accordance with claim 12, wherein the components of the application material which cannot be burned and which cannot be gasified can be used in form of a fluidized bed.

20. (Previously presented) An apparatus in accordance with claim 13, wherein the components of the application material which cannot be burned and which cannot be gasified can be used in form of a fluidized bed.